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EXAMINER	
FIGUEROA, MARISOL	
ART UNIT	**PAPER NUMBER**
2681	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/728,035	ATTAR ET AL.	
	Examiner	Art Unit	
	Marisol Figueroa	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-9,12-18,21-22,24-28,30-31,33,35-36,and 39* is/are rejected.

7)☒ Claim(s) *6,11,19,20,23,29,32,34,37 and 38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The Information Disclosure Statement (IDS) filed on 12/03/2003 has been considered by the Examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 14, 17, 21, 33, and 39** are rejected under 35 U.S.C. 102(e) as being anticipated by Gandhi et al. (US 6,944,449 B1).

Regarding claim 1, Gandhi discloses an apparatus for communications, comprising:

means for communicating, from a base station, with a plurality of communication devices, the communications placing a load on the base station (Figure 1 shows a base station 10 that communicates with a subscriber station 24 though its receiver, although only one subscriber station is shown it is known that a base station can communicate with a plurality of subscriber stations and each place a load in the system);

means for monitoring a plurality of parameters each relating to the load on the base station (col.2, lines 26-32; the base station includes a pair of measurers for measuring, i.e. monitoring, system performance indicators); and

means for detecting an overload as a result of one of the parameters crossing a threshold (col.2, lines 54 – col.3, lines 1-5; col.4, lines 47 – col.5, lines 1-10; col.9, lines 30-33; the base station establishes a blocking threshold upon the measured second performance indicator that represent an overload control threshold for preventing overloading of the wireless communication systems with active subscribers stations, therefore if the first performance indicator exceeds the blocking threshold the wireless communication system rejects new calls because the system is overloaded).

Regarding claim 14, Gandhi discloses the apparatus of claim 1 wherein one of the parameters comprises receiver stability at the base station (col.2, line 54 – col.3, lines 1-5; col.4, lines 58-62; col.3, lines 23-29, 36-42; col.4, lines 4-7; the base station measures a first performance indicator, i.e. parameter, which is the interference rise over the background noise that is a measure of signal quality or reliability over a defined coverage area for the reverse link and is compared with a blocking threshold that represents a control overload benchmark, therefore if the interference rise over the background noise exceeds the blocking threshold the system will be overloaded).

Regarding claim 17, Gandhi discloses the apparatus of claim 1, further comprising: means for implementing a control mechanism to reduce the overload ((col.2, lines 54 – col.3, lines 1-5; col.4, lines 47 – col.5, lines 1-10; col.9, lines 30-33; the base station establishes a blocking threshold upon the measured second performance indicator that represent an overload control threshold for preventing overloading the wireless communication systems with active subscribers stations, therefore if the first performance indicator exceeds the blocking threshold the wireless communication system rejects new calls to prevent coverage and/or performance degradation due to overload conditions).

Regarding claim 21, Gandhi discloses a base station configured to support communications with a plurality of communication devices, the communications placing a load on the base station, the base station comprising:

a processor configured to monitor a plurality of parameters each relating to the load on the base station (col.2, lines 26-32; the base station includes a pair of measurers for measuring, i.e. monitoring, system performance indicators), and to detect an overload as a result of one of the parameters crossing a threshold (col.2, lines 54 – col.3, lines 1-5; col.4, lines 47 – col.5, lines 1-10; col.9, lines 30-33; the base station establishes a blocking threshold upon the measured second performance indicator that represent an overload control threshold for preventing overloading of the wireless communication systems with active subscribers stations, therefore if the first performance indicator exceeds the blocking threshold the wireless communication system rejects new calls because the system is overloaded).

Regarding claim 33, Gandhi discloses the base station of claim 21 further comprising a receiver and transmitter, and wherein the processor is further configured to support communications with the communication devices, and wherein one of the parameters is a function of receiver stability (col.2, line 54 – col.3, lines 1-5; col.4, lines 58-62; col.3, lines 23-29, 36-42; col.4, lines 4-7; the base station measures a first performance indicator, i.e. parameter, which is the interference rise over the background noise that is a measure of signal quality or reliability over a defined coverage area for the reverse link and is compared with a blocking threshold that represents a control overload benchmark, therefore if the interference rise over the background noise exceeds the blocking threshold the system will be overloaded).

Regarding claim 39, Gandhi disclose a method for communications, comprising: communicating, from a base station, with a plurality of communication devices, the communications

placing a load on the base station; monitoring a plurality of parameters each relating to the load on the base station (col.2, lines 26-32; the base station includes a pair of measurers for measuring, i.e. monitoring, system performance indicators); and detecting an overload as a result of one of the parameters crossing a threshold (col.2, lines 54 – col.3, lines 1-5; col.4, lines 47 – col.5, lines 1-10; col.9, lines 30-33; the base station establishes a blocking threshold upon the measured second performance indicator that represent an overload control threshold for preventing overloading of the wireless communication systems with active subscribers stations, therefore if the first performance indicator exceeds the blocking threshold the wireless communication system rejects new calls because the system is overloaded).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 2, 3, and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi et al. in view of Sauter et al. (US 2004/0209623 A1).

Regarding claim 2, Gandhi discloses the apparatus of claim 1 wherein one of the parameters comprises receiver stability at the base station, and the overload is detected as a result of a receiver stability estimate exceeding the threshold (col.2, line 54 – col.3, lines 1-5; col.4, lines 58-62; col.3, lines 23-29, 36-42; col.4, lines 4-7; the base station measures a first performance indicator, i.e. parameter, which is the interference rise over the background noise that is a measure of signal

quality or reliability over a defined coverage area for the reverse link and is compared with a blocking threshold that represents a control overload benchmark, therefore if the interference rise over the background noise exceeds the blocking threshold the system will be overloaded).

However fails to disclose wherein the overload is detected as a result of the parameter exceeding a threshold for a period of time. Sauter discloses a method for controlling access to a public land mobile network; the method comprises checking the load condition in regular time periods and barring access classes depending if a load threshold value is exceeded or not (abstract; p.0008-0010). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to detect an overload condition as a result of a parameter exceeding a threshold for a period of time as suggested by Sauter, because it will determine that the network is actually overloaded in order to transmit signalization to mobile subscribers, and therefore not wasting resources if the overload condition is not severe.

Regarding claim 3, the combination of Gandhi and Sauter disclose the apparatus of claim 2, Gandhi further disclose wherein the receiver stability estimate comprises a rise-over-thermal (col.3, lines 57-60).

Regarding claim 22, Gandhi discloses the base station of claim 21 further comprising a receiver (Figure 1; Receiver 14), and wherein one of the parameters is a function of receiver stability, the processor being further configured to detect the overload as a result of a receiver stability estimate exceeding the threshold (col.2, line 54 – col.3, lines 1-5; col.4, lines 58-62; col.3, lines 23-29, 36-42; col.4, lines 4-7; the base station measures a first performance indicator, i.e. parameter, which is the interference rise over the background noise that is a measure of signal quality or reliability over a defined coverage area for the reverse link and is compared with a blocking threshold that

represents a control overload benchmark, therefore if the interference rise over the background noise exceeds the blocking threshold the system will be overloaded).

However fails to disclose wherein the overload is detected as a result of the parameter exceeding a threshold for a period of time. Sauter discloses a method for controlling access to a public land mobile network; the method comprises checking the load condition in regular time periods and barring access classes depending if a load threshold value is exceeded or not (abstract; p.0008-0010). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to detect an overload condition as a result of a parameter exceeding a threshold for a period of time as suggested by Sauter, because it will determine that the network is actually overloaded in order to transmit signalization to mobile subscribers, and therefore not wasting resources if the overload condition is not severe.

6. **Claims 4, 5, 24, and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi et al. in view of Sauter et al., and further in view of Lee et al. (US 2003/0125068 A1).

Regarding claim 4, the combination of Gandhi and Sauter disclose the apparatus of claim 3, however fail disclose further comprising means for generating power control commands for each of the communication devices, and adjusting the threshold as a function of the power control commands. Lee discloses for performing power control in a mobile communication system, wherein the base station generates power control commands based on a power control threshold value for a first terminal and adjusted according to a communication environment (p.0012-0020; p.0029-0037). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide means for generating power control commands for each of the communication devices and adjust a threshold as a function of the power control command as suggested by Lee, in order to reduce signal interference in the system.

Regarding claim 5, the combination of Gandhi, Sauter, and Lee disclose the apparatus of claim 4, Lee further discloses comprising means for monitoring the communications from each of the communication devices to detect errors, and wherein the adjustment of the threshold is further a function of the detected errors (p.0038-0039). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to monitor the communication from the communication devices to detect errors and adjust the threshold as a function of the detected errors as suggested by Lee, in order to decrease for example the frame errors of voice data.

Regarding claim 24, the combination of Gandhi and Sauter disclose the base station of claim 22, but fails to disclose wherein the processor is further configured to generate power control commands for each of the communication devices, and adjust the threshold as a function of the power control commands. Lee discloses for performing power control in a mobile communication system, wherein the base station generates power control commands based on a power control threshold value for a first terminal and adjusted according to a communication environment (p.0012-0020; p.0029-0037). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention for the processor to be configured to generate power control commands and adjust a threshold as a function of the power control command as suggested by Lee, in order to reduce signal interference in the system.

Regarding claim 25, the combination of Gandhi, Sauter, and Lee disclose the base station of claim 24, Lee further discloses wherein the processor is further configured to monitor communications from the communication devices to detect errors, and wherein the adjustment of the threshold by the processor is further a function of the detected errors (p.0038-0039). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to monitor the communication from the communication devices to detect errors and adjust the

threshold as a function of the detected errors as suggested by Lee, in order to decrease for example the frame errors of voice data.

7. **Claims 7-9, and 26-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi et al. in view of Laakso (US 2003/0003921 A1).

Regarding claim 7, Gandhi discloses the apparatus of claim 1, however fails to disclose wherein one of the parameters comprises transmission power requirements for a base station transmitter, the transmission power requirements being derived from feedback from the communication devices.

Laakso teaches a method for traffic load control in a telecommunication network comprising the steps of setting a first reference load value for the load of a respective cell (abstract, lines 1-11); the method measures the parameter PrxTotal which is the total received power in the uplink measured on cell basis (Page 3, Table), and establishes an overload condition if the PrxTotal exceeds the overload threshold PrxThreshold (p.0071; p.0074). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention that one of monitored parameters comprises transmission power requirements for a base station transmitter as suggested by Laakso, because is a parameter well known to be used to estimate and control the state of congestion of a communication system due to wireless communication devices.

Regarding claim 8, the combination of Gandhi and Laakso disclose the apparatus of claim 7, Laakso further disclose wherein the transmission power requirements comprise transmission power requirements for a plurality of reverse power control (RPC) channels, each of the RPC channels being assigned to one of the communication devices (Page 3, Table; the method measures the PrxTotal which is the total received power in the uplink, i.e. reverse channels). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention that the

transmission power requirements comprises transmission power requirements for a plurality of reverse power control channels as suggested by Laakso, because it is well known that communication systems establishes reception power requirements to ensure the stability of the network.

Regarding claim 9, the combination of Gandhi and Laakso disclose the apparatus of claim 7, Laakso further disclose wherein the overload is detected as a result of the transmission power requirements exceeding a maximum transmission power capability of the base station transmitter (p.0123, lines 1-9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to detect an overload condition as a result of the transmission power requirements exceeding a maximum transmission power capability as suggested by Laakso, because the transmission power is too much and the system can become unstable.

Regarding claim 26, Gandhi discloses the base station of claim 21 further comprising a transmitter (Figure 1; Transmitter 12), however fails to disclose wherein one of the parameters is a function of the transmission power requirements for the transmitter, the processor being further configured to derive transmission power requirements from feedback from the communication devices.

Laakso teaches a method for traffic load control in a telecommunication network comprising the steps of setting a first reference load value for the load of a respective cell (abstract, lines 1-11); the method measures the parameter PrxTotal which is the total received power in the uplink measured on cell basis (Page 3, Table), and establishes an overload condition if the PrxTotal exceeds the overload threshold PrxThreshold (p.0071; p.0074). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention that one of monitored parameters comprises transmission power requirements for a base station transmitter as suggested by Laakso,

because is a parameter well known to be used to estimate and control the state of congestion of a communication system due to wireless communication devices.

Regarding claim 27, the combination of Gandhi and Laakso disclose the base station of claim 26, Laakso further disclose wherein the transmission power requirements comprise transmission power requirements for a plurality of reverse power control (RPC) channels, each of the RPC channels being assigned to one of the communication devices (Page 3, Table; the method measures the PrxTotal which is the total received power in the uplink, i.e. reverse channels). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention that the transmission power requirements comprises transmission power requirements for a plurality of reverse power control channels as suggested by Laakso, because it is well known that communication systems establishes reception power requirements to ensure the stability of the network.

Regarding claim 28, the combination of Gandhi and Laakso disclose the base station of claim 26, Laakso further disclose wherein the overload is detected as a result of the transmission power requirements exceeding a maximum transmission power capability of the base station transmitter (p.0123, lines 1-9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to detect an overload condition as a result of the transmission power requirements exceeding a maximum transmission power capability as suggested by Laakso, because the transmission power is too much and the system can become unstable.

8. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi et al. in view of Padovani et al. (US 6,442,398 B1).

Regarding claim 10, Gandhi discloses the apparatus of claim 1, however fails to disclose wherein one of the parameters comprises a number of the communication devices in communication with the base station.

Padovani teaches that a simple means for determining reverse link loading is to simply count the number of active users in the base station (col.4, lines 32-34). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention for one of the monitored parameters to be a number of the communication devices in communication with the base station as suggested by Padovani, because it is a simple means for determining reverse link loading.

9. **Claims 12 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi et al. in view of Volftsun et al. (US 6,707,792 B1).

Regarding claim 12, Gandhi discloses the apparatus of claim 1, however fails to disclose to further comprise means for detecting a second degree of overload as a result of said one of the parameters crossing a second threshold. Volftsun teaches a method and apparatus for reducing overload conditions of a node of a communication system, it establishes pairs of overload thresholds values and each overload threshold correspond to the current saturation level (abstract). The pair of thresholds corresponds to an upper and a lower overload level values and correspond to saturation conditions in the node (col.2, line 34 – col. 3, lines 1-7). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to detect a second degree of overload level as a result of one of the parameters crossing a second threshold as suggested by Volftsun, because a second threshold may correspond to an upper overload value that indicates a saturation condition in the base station greater than a lower overload threshold.

Regarding claim 30, Gandhi discloses the base station of claim 21, however fails to disclose wherein the processor is further configured to detect a second degree overload as a result of

the one of the parameters crossing a second threshold. Volftsun teaches a method and apparatus for reducing overload conditions of a node of a communication system, it establishes pairs of overload thresholds values and each overload threshold correspond to the current saturation level (abstract). The pair of thresholds corresponds to an upper and a lower overload level values and correspond to saturation conditions in the node (col.2, line 34 – col. 3, lines 1-7). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to detect a second degree of overload level as a result of one of the parameters crossing a second threshold as suggested by Volftsun, because a second threshold may correspond to an upper overload value that indicates a saturation condition in the base station greater than a lower overload threshold.

10. **Claims 13 and 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi et al. in view of Djuric (US 6,785,546 B1).

Regarding claim 13, Gandhi discloses the apparatus of claim 1, however fails to disclose wherein one of the parameters comprises loading on processing resources used for communication with the communication devices. Djuric teaches a method and apparatus that monitors the traffic (i.e. load) in an application processor used of a wireless communication network in order to maintain call processing related traffic below a predefined threshold to avoid overload (abstract; col.1, line 50-col.2, lines 1-9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention for one of the parameters to comprise loading on processing resources used for communication as suggested by Djuric, in order to maintain the traffic below a predefined threshold and improve the overall performance of the base station processor.

Regarding claim 31, Gandhi disclose the base station of claim 21 wherein the processor is further configured to support communications with the communication devices, however fails to disclose wherein one of the parameters comprises loading on processing resources used for

communication with the communication devices. Djuric teaches a method and apparatus that monitors the traffic (i.e. load) in an application processor used of a wireless communication network in order to maintain call processing related traffic below a predefined threshold to avoid overload (abstract; col.1, line 50-col.2, lines 1-9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention for one of the parameters to comprise loading on processing resources used for communication as suggested by Djuric, in order to maintain the traffic below a predefined threshold and improve the overall performance of the base station processor.

11. **Claims 15 and 35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi et al. in view of Laakso (US 2003/0003921 A1), and further in view of Djuric (US 6,785,546 B1).

Regarding claim 15, Gandhi discloses the apparatus of claim 1 wherein one of the parameters comprises receiver stability at the base station (col.2, line 54 – col.3, lines 1-5; col.4, lines 58-62; col.3, lines 23-29, 36-42; col.4, lines 4-7; the base station measures a first performance indicator, i.e. parameter, which is the interference rise over the background noise that is a measure of signal quality or reliability over a defined coverage area for the reverse link and is compared with a blocking threshold that represents a control overload benchmark, therefore if the interference rise over the background noise exceeds the blocking threshold the system will be overloaded).

However, Gandhi fails to disclose wherein a second one of the parameters comprises base station transmission power requirements derived from feedback from the communication devices. Laakso teaches a method for traffic load control in a telecommunication network comprising the steps of setting a first reference load value for the load of a respective cell (abstract, lines 1-11); the method measures the parameter PrxTotal which is the total received power in the uplink measured on cell basis (Page 3, Table), and establishes an overload condition if the PrxTotal exceeds the overload threshold PrxThreshold (p.0071; p.0074). Therefore, it would have been obvious to one

having ordinary skill in the art at the time of the invention that a second monitored parameter comprises transmission power requirements for a base station transmitter as suggested by Laakso, because is a parameter well known to be used to estimate and control the state of congestion of a communication system due to wireless communication devices.

Nevertheless, the combination of Gandhi and Laakso fails to disclose monitoring a third parameter that comprises loading on processing resources used for communication with the communication devices.

Djuric teaches a method and apparatus that monitors the traffic (i.e. load) in an application processor used of a wireless communication network in order to maintain call processing related traffic below a predefined threshold to avoid overload (abstract; col.1, line 50-col.2, lines 1-9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention for the third of the monitored parameters to comprise loading on processing resources used for communication as suggested by Djuric, in order to maintain the traffic below a predefined threshold and improve the overall performance of the base station processor.

Regarding claim 35, Gandhi discloses the base station of claim 21 further comprising a receiver and transmitter (Figure 1), and wherein the processor is further configured to support communications with the communication devices, and wherein one of the parameters is a function of receiver stability (col.2, line 54 – col.3, lines 1-5; col.4, lines 58-62; col.3, lines 23-29, 36-42; col.4, lines 4-7; the base station measures a first performance indicator, i.e. parameter, which is the interference rise over the background noise that is a measure of signal quality or reliability over a defined coverage area for the reverse link and is compared with a blocking threshold that represents a control overload benchmark, therefore if the interference rise over the background noise exceeds the blocking threshold the system will be overloaded).

However, Gandhi fails to disclose wherein the second one of the parameters is a function of transmission power requirements for the transmitter. Laakso teaches a method for traffic load control in a telecommunication network comprising the steps of setting a first reference load value for the load of a respective cell (abstract, lines 1-11); the method measures the parameter PrxTotal which is the total received power in the uplink measured on cell basis (Page 3, Table), and establishes an overload condition if the PrxTotal exceeds the overload threshold PrxThreshold (p.0071; p.0074). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention that a second monitored parameter comprises transmission power requirements for a base station transmitter as suggested by Laakso, because is a parameter well known to be used to estimate and control the state of congestion of a communication system due to wireless communication devices.

Nevertheless, the combination of Gandhi and Laakso fails to disclose monitoring a third parameter that is a function of loading on the processor.

Djuric teaches a method and apparatus that monitors the traffic (i.e. load) in an application processor used of a wireless communication network in order to maintain call processing related traffic below a predefined threshold to avoid overload (abstract; col.1, line 50-col.2, lines 1-9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention for the third of the monitored parameters to comprise loading on processing resources used for communication as suggested by Djuric, in order to maintain the traffic below a predefined threshold and improve the overall performance of the base station processor.

12. **Claims 16 and 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi et al. in views of Laakso, and Djuric, and further in view of Padovani et al.

Regarding claim 16, the combination of Gandhi, Laakso, and Djuric disclose apparatus of claim 15, however fails to disclose wherein a fourth one of the parameters comprises a number of the communication devices in communication with the base station. Padovani teaches that a simple means for determining reverse link loading is to simply count the number of active users in the base station (col.4, lines 32-34). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention for one of the monitored parameters to be a number of the communication devices in communication with the base station as suggested by Padovani, because it is a simple means for determining reverse link loading.

Regarding claim 36, the combination of Gandhi, Laakso, and Djuric discloses the base station of claim 35, however fails to disclose wherein a fourth one of the parameters is a function of the number of communication devices in communication with the base station. Padovani teaches that a simple means for determining reverse link loading is to simply count the number of active users in the base station (col.4, lines 32-34). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention for one of the monitored parameters to be a number of the communication devices in communication with the base station as suggested by Padovani, because it is a simple means for determining reverse link loading.

13. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi et al. in view of Bender et al. (US 2002/0155852 A1).

Regarding claim 18, Gandhi discloses the apparatus as in claim 17, however fails to disclose wherein the means for implementing a control mechanism comprises: means for determining idle users; and means for bumping service to idle users.

Bender teaches a method for supervising connections with wireless access terminals and releasing the access terminals when they become idle for a predetermined period of time (p.0036,

lines 1-11). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention for the control mechanism to include means for determining idle users and means for bumping service to idle users as suggested by Bender, in order to free and maximize the RF resources for use by other access terminals.

Allowable Subject Matter

14. Claims 6, 11, 19, 20, 23, 29, 32, 34, 37, and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marisol Figueroa whose telephone number is (571) 272-7840. The examiner can normally be reached on Monday Thru Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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